

PATENT ABSTRACTS OF JAPAN

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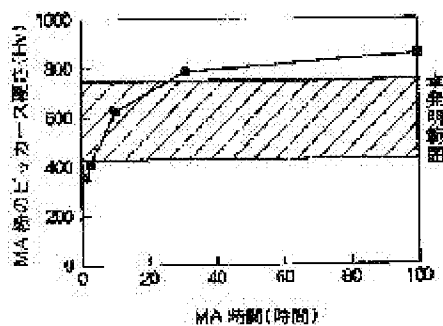
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(54) MANUFACTURE OF OXIDE DISPERSED STEEL

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a method of manufacture of an oxide dispersed steel having excellent high temp. creep strength characteristic of an oxide dispersed steel, rich in ductility and toughness, and applicable to a high speed rotor for high temp. use.

SOLUTION: In the method of manufacture of an oxide dispersed steel by means of mechanical alloying, 0.1-2 wt.% of fine Y₂O₃ powder is added to a raw-material powder having a composition consisting of, by weight, 7-18% Cr, 0.1-2% Ti, 0.1-3% of (1/2W+Mo), and the balance Fe with inevitable impurities, carrying out mechanical alloying until the hardness of the resultant powder mixture reaches a value in a prescribed range and/or until no peak of Y₂O₃ of the resultant powder by X-ray diffraction is detected, and then subjecting the resultant powder mixture to solidification and compaction and to



heat treatment.